

REMARKS

Claims 1-15 and 17-90 are pending in this application. Independent claims 1, 18, 19, 31, 37, 43, 44, 50, 66, 67, 79 and 85 are currently amended, and all remaining dependent claims have been amended merely to replace "said" with "the" for clarity and consistency with the language of the independent claims. Claims 91-97 have been cancelled. A one-month extension petition is submitted herewith.

In the Office Action, claims 1-15 and 17-97 were rejected based on 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. Applicants disagree that the application lacks a written description of the calibration process previously claimed, as support for this previously claimed predetermined initial calibration pressure is found in the specification, for instance, at pages 14-15 in the discussion of Figure 6. In any event, as this feature has now been removed from the claims, applicants believe that this rejection is now moot and requests that it be withdrawn.

Applicants submit that the current amendments comply with § 112, first paragraph, and a description of the "auto-calibration" feature of the amended claims is found, for example, at page 17, line 20, through page 18, line 25.

Turning to the prior art, claims 1-15 and 17-97 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,067,005 to DeVolpi ("DeVolpi") in view of U.S. Patent No. 5,184,120 to Schultz ("Schultz").

With the present amendment, all of the claims now provide for an "auto-calibration" feature, which is not disclosed in either DeVolpi or Schultz, alone or in combination. Namely, as described at page 17, line 20, through page 18, line 25, and shown in Figures 10 and 11, the claimed feature of auto-calibration allows the range of output levels of the segmented

analog signal to be properly adjusted. The auto-calibration feature uses a calibration voltage circuit, preferably potentiometers or "volume devices" 21 and 22 as shown in Figure 10. The potentiometers are serially connected to the power line 13 to serve as electric potential setting devices. The potentiometers 21 and 22 generate intermediate voltages (i.e., maximum and minimum calibration voltages) V1 and V2 from the power line 13. The intermediate voltages V1 and V2 are determined by the potentiometers as shown in Figure 11.

Monitoring of the voltages V1 and V2 is performed within MPU 14 and preferably by the level segmenting unit 15 to monitor the intermediate voltages V1 and V2. If secular changes or fluctuations in the intermediate voltages V1 and V2 occur or variations in the power supply voltage occur, the range of output levels of the segmented analog signal can be adjusted on the basis of the intermediate voltages V1 and V2 after the occurrence of the changes, fluctuations or variations.

DeVolpi provides a multi-speed, multi-directional analog pointing device with a contact surface that can be deflected by application of compression and tilting forces in operation of the pointing device. Schultz discloses a radio 100 having a selector or menu key 112. The menu key uses a force sensing resistor (FSR) and pull-up fixed resistor 114 to form a voltage divider circuit. Figure 3 shows a calibration or scaling routine 300 inside of microprocessor 100. The routine 300 shows how the sensitivity of the operation of the FSR 112 can be adjusted. Neither DeVolpi nor Schultz, however, disclose or suggest the use of a calibration voltage circuit for providing predetermined maximum and minimum calibration voltages and monitoring voltage fluctuations in the predetermined maximum and minimum calibration voltages, segmenting an output level of the analog signals into discrete calibration levels based on the

predetermined maximum and minimum calibration voltages after the occurrence of any voltage fluctuations in the predetermined maximum and minimum calibration voltages and segmenting output levels of the analog signals into the calibration levels during normal operation.

The currently amended claims now provide this auto-calibration feature, and applicants maintain that the present claims are not rendered obvious by the combination of DeVolpi and Schultz, especially since the proposed combination, even if made, would not produce the claimed invention.

In view of the foregoing, applicants believe that each of the pending claims in this application is in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections of the claims and pass this application to issue.

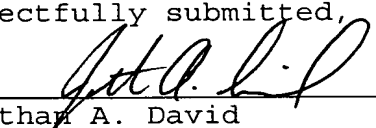
If, however, for any reason the Examiner does not believe that such action can be taken at this time, he is respectfully requested to telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: September 20, 2004

Respectfully submitted,

By

  
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